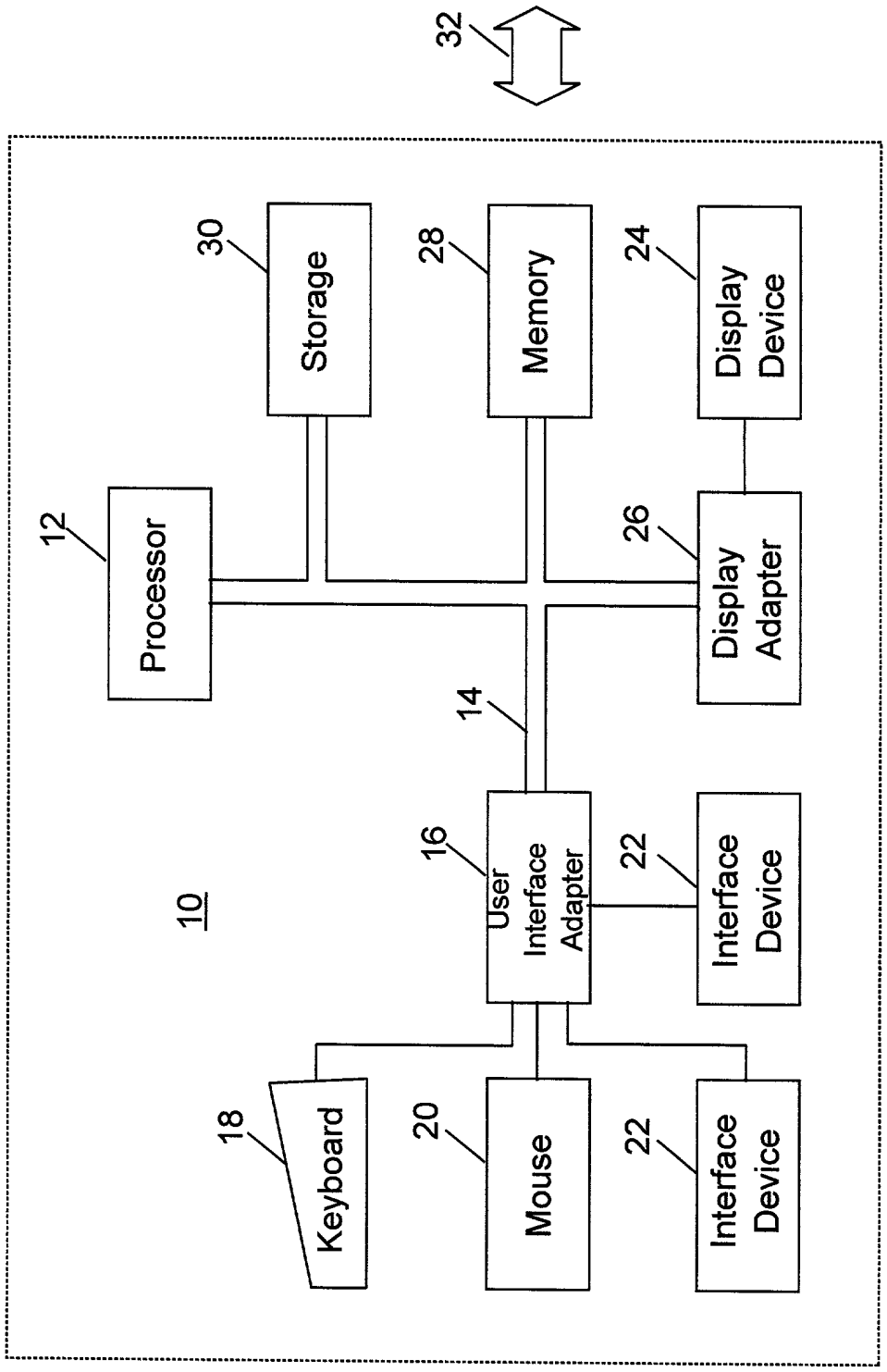

32
10
12
Processor
30
Storage
28
Memory
24
Display Device
26
Display Adapter
14
16
User Interface Adapter
22
Interface Device
18
Keyboard
20
Mouse
22
Interface Device

FIG. 1

FIG. 2
(PRIOR ART)

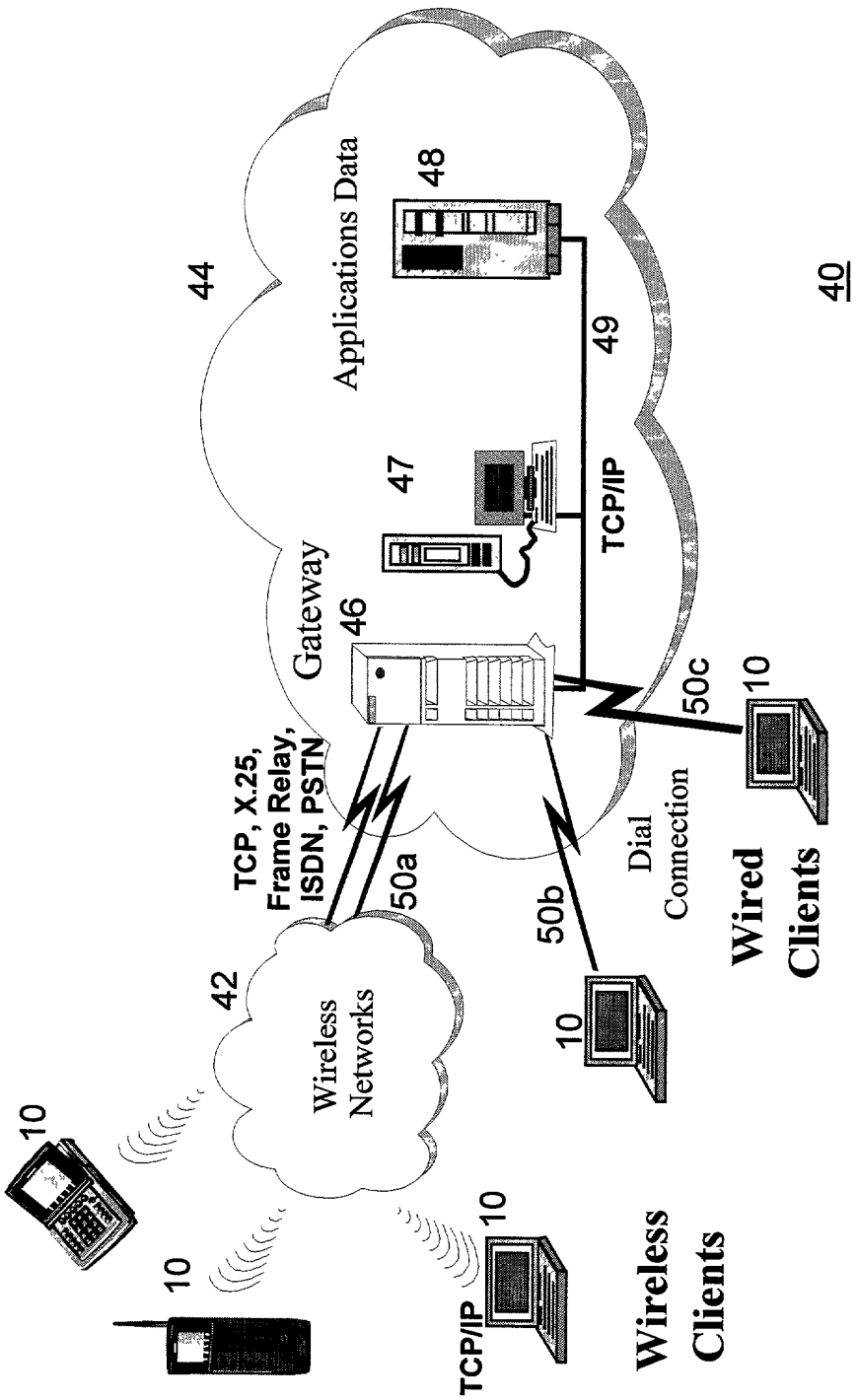


FIG. 3

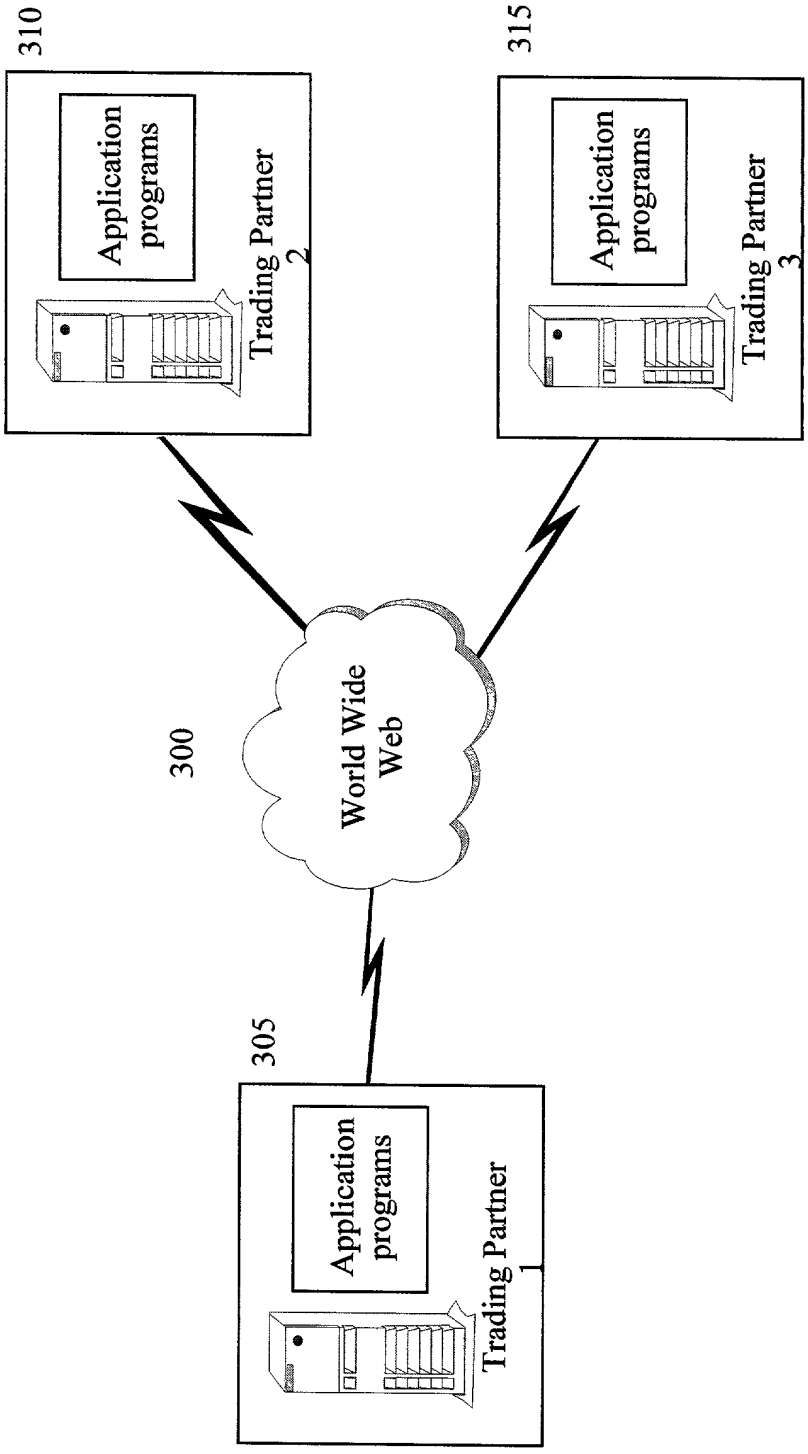

310
Application programs
Trading Partner 2
315
Application programs
Trading Partner 3
300
World Wide Web
305
Application programs
Trading Partner 1

FIG. 4

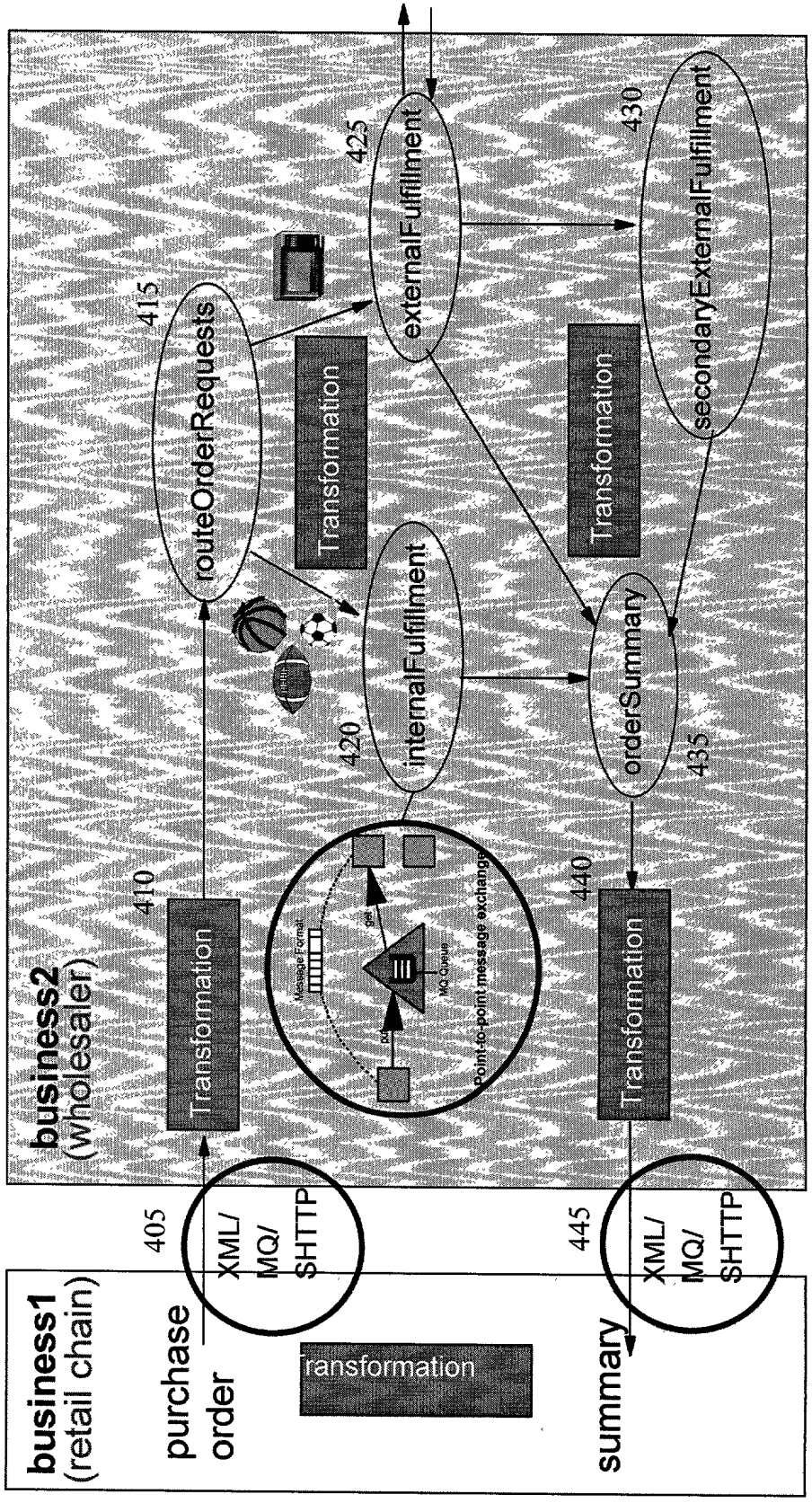

400
business1
(retail chain)
purchase order
summary
405
XML/
MQ/
$HTTP
445
XML/
MQ/
$HTTP
transformation
450
business2
(wholesaler)
410
Transformation
415
routeOrderRequests
420
internalFulfillment
425
externalFulfillment
430
secondaryExternalFulfillment
435
orderSummary
440
Transformation
Transformation
Transformation
Message Format
MQ Queue
Point-to-point message exchange

FIG. 5

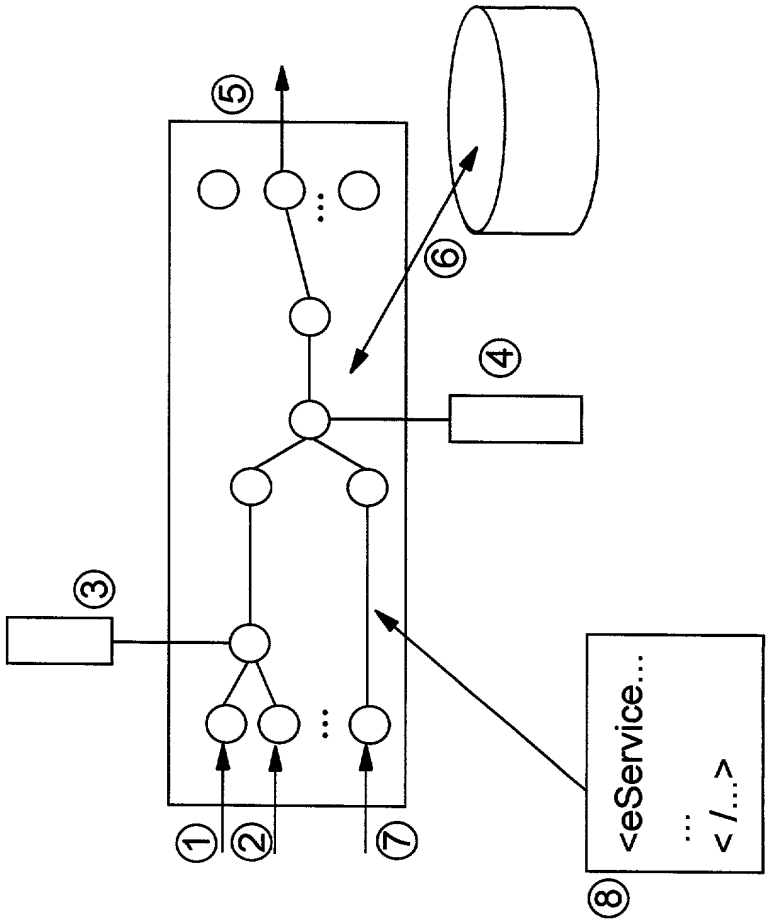


FIG. 6

```
<eServiceDefinition>
    <ServiceUnit name=" ... ">
        <description> ... </description>
        <actions> ... </actions>
        <nextServices>
            <service> ... </service>
            ...
        </nextServices>
    </ServiceUnit>
    <ServiceUnit name=" ... ">
        ...
    </ServiceUnit>
</eServiceDefinition>
```

FIG. 7

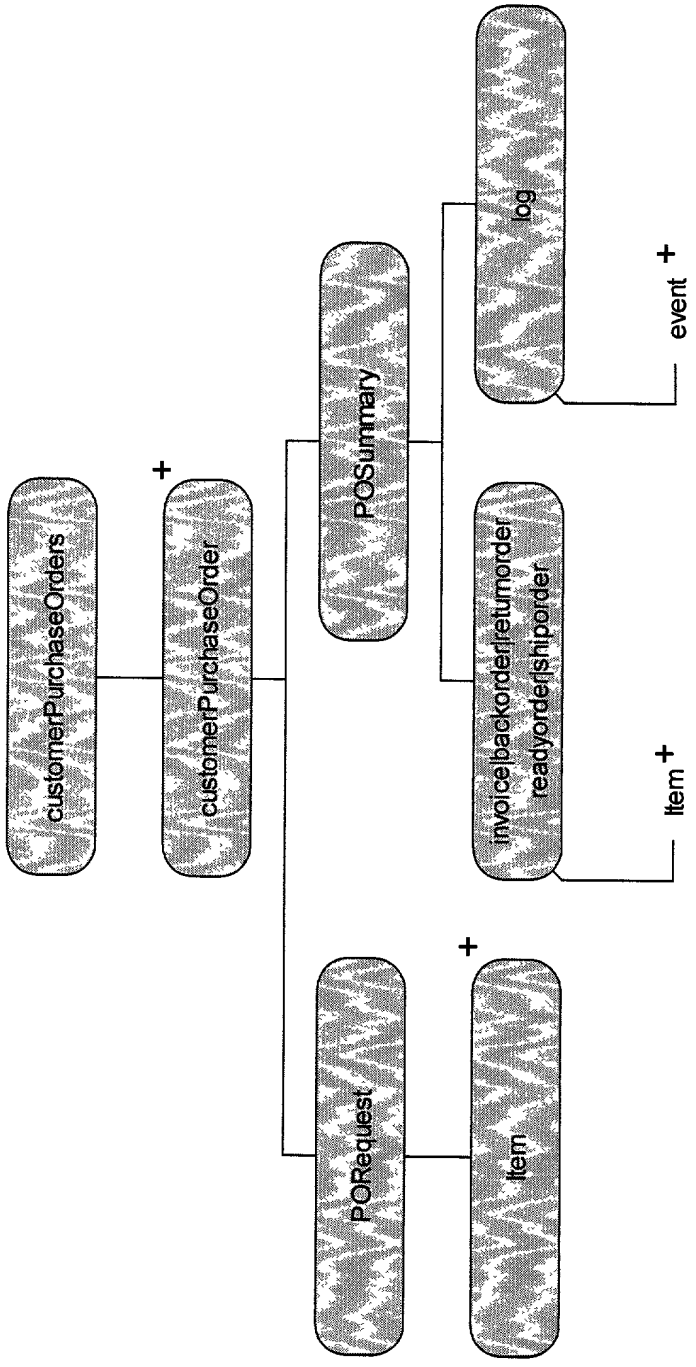

customerPurchaseOrders
customerPurchaseOrder
+
POSummary
log
event
+
invoice|backorder|returnorder
readyorder|shiporder
item
+
PORequest
item
+

FIG. 8

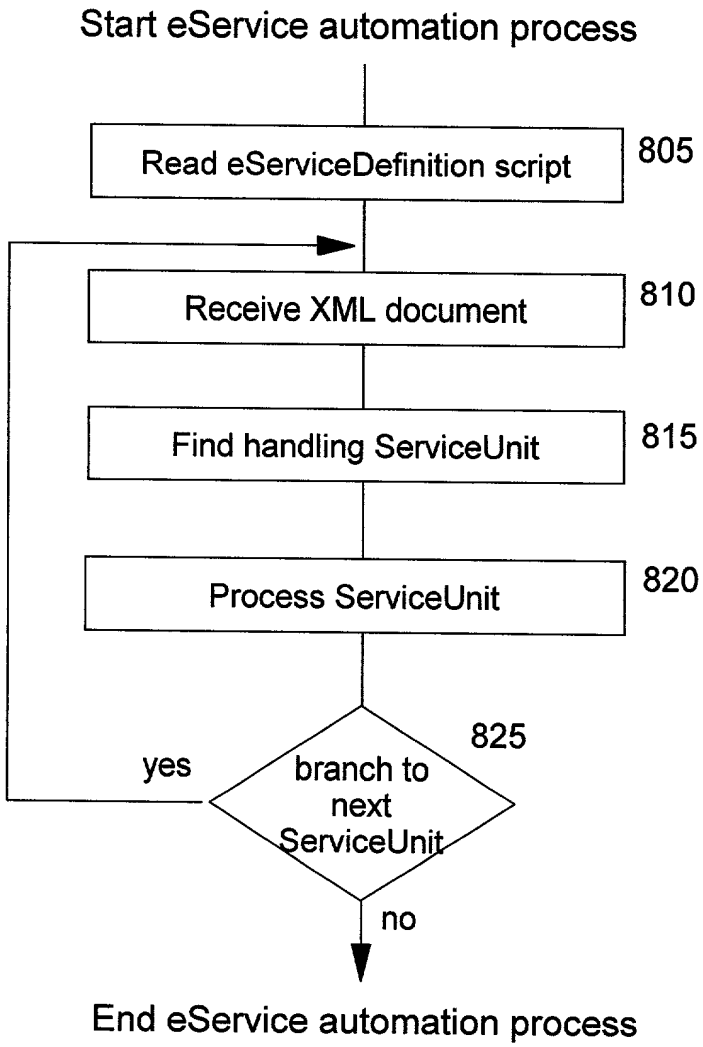

Start eService automation process
Read eServiceDefinition script
805
Receive XML document
810
Find handling ServiceUnit
815
Process ServiceUnit
820
825
yes
branch to next ServiceUnit
no
End eService automation process

FIG. 9

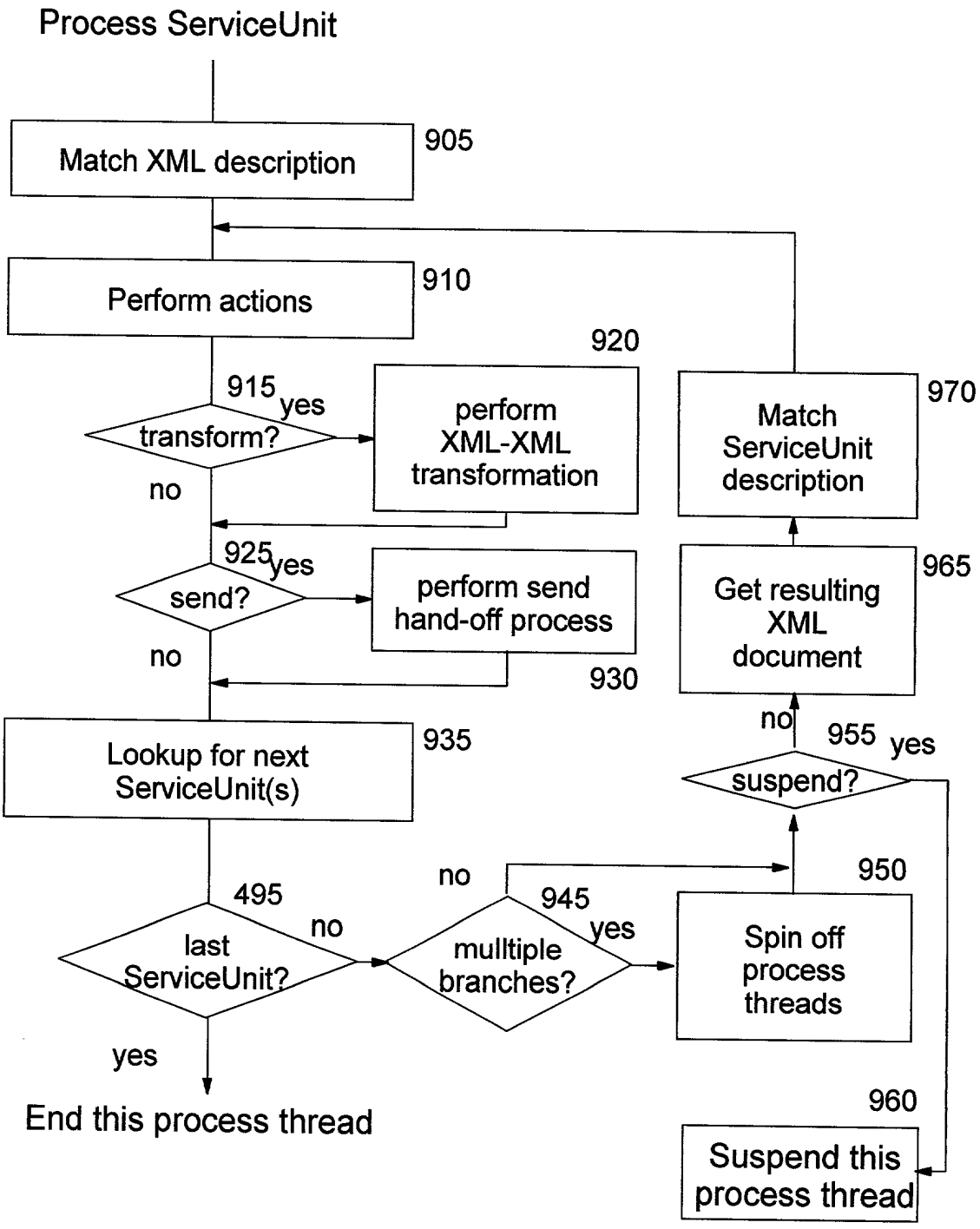

Process ServiceUnit
Match XML description
905
Perform actions
910
915
yes
transform?
no
920
perform XML-XML transformation
925
yes
send?
no
perform send hand-off process
930
Lookup for next ServiceUnit(s)
935
495
last ServiceUnit?
no
yes
End this process thread
no
945
mulltiple branches?
yes
950
Spin off process threads
Match ServiceUnit description
970
Get resulting XML document
965
no
955
yes
suspend?
960
Suspend this process thread

FIG. 10

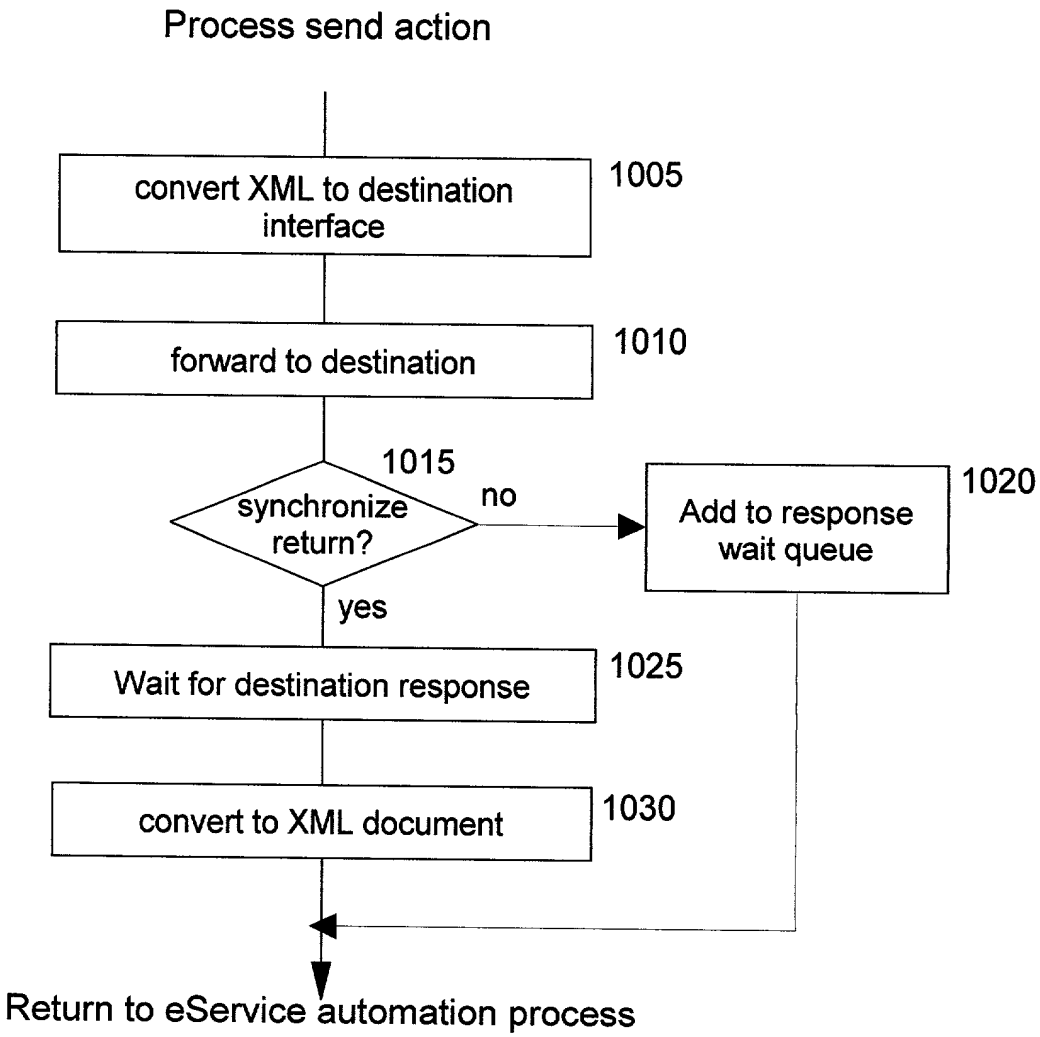

Process send action
convert XML to destination interface
1005
forward to destination
1010
1015
synchronize return?
no
Add to response wait queue
1020
yes
Wait for destination response
1025
convert to XML document
1030
Return to eService automation process

FIG. 11

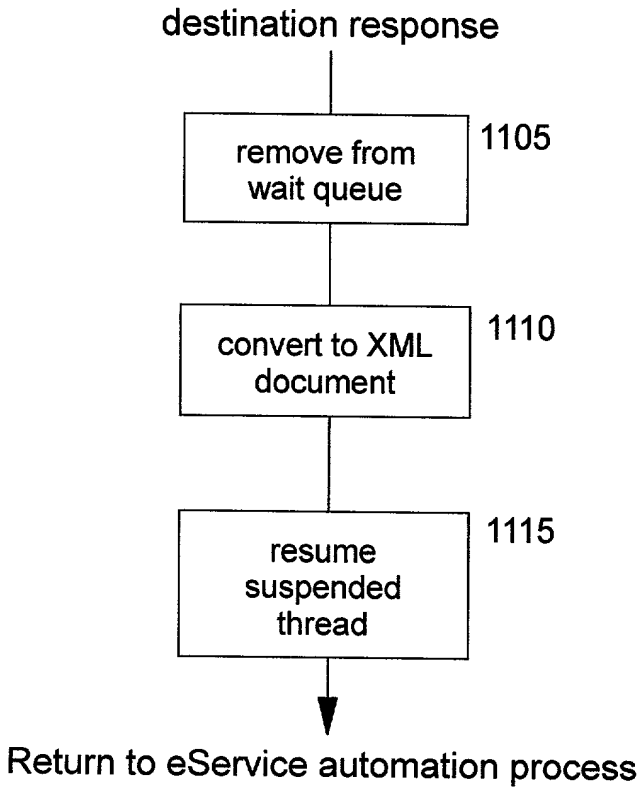
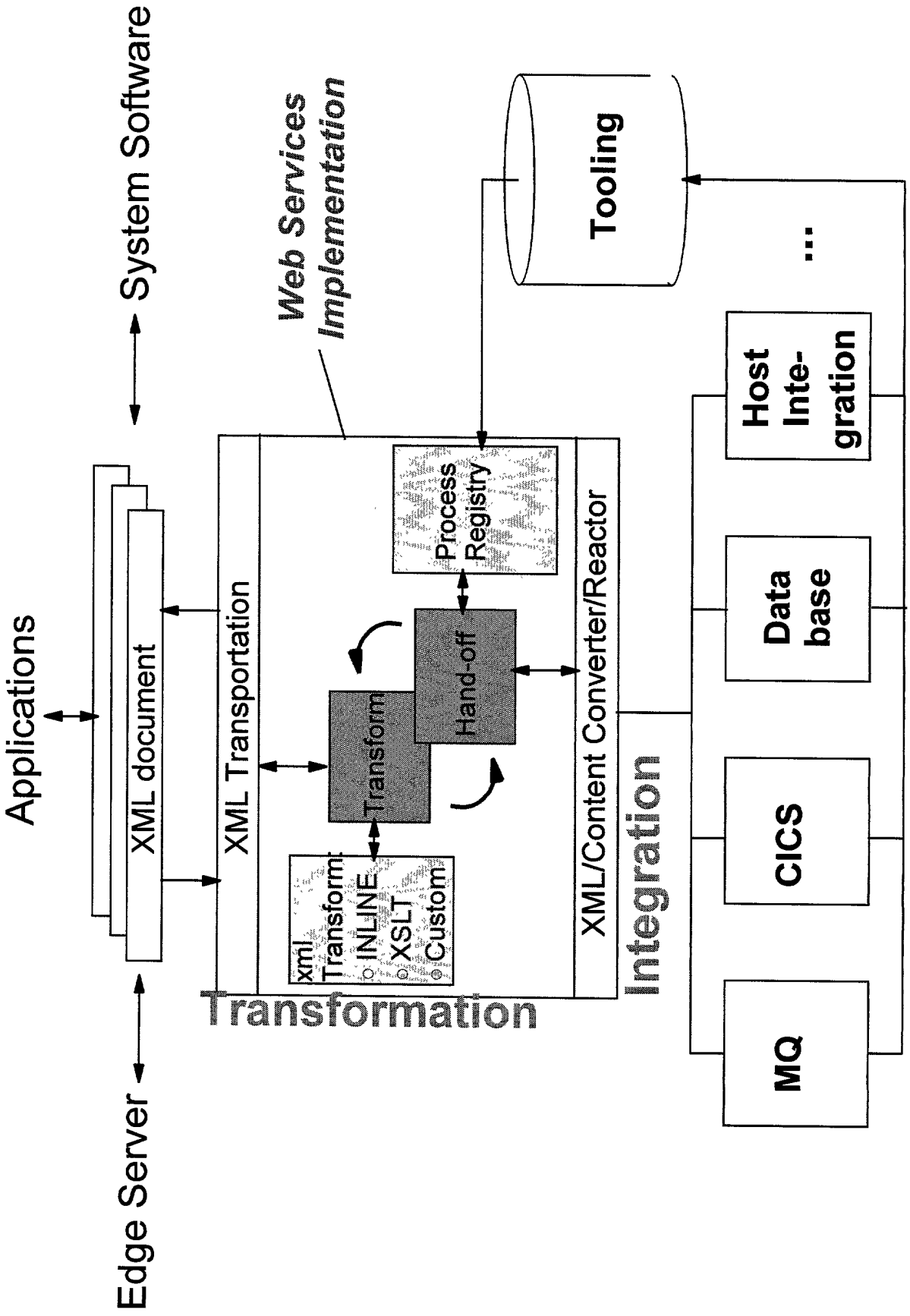

destination response
remove from wait queue
1105
convert to XML document
1110
resume suspended thread
1115
Return to eService automation process

FIG. 12


Applications
System Software
Edge Server
XML document
XML Transportation
Web Services Implementation
Process Registry
Hand-off
Transform
xml Transform: INLINE XSLT Custom
Transformation
XML/Content Converter/Reactor
Integration
Tooling
Host Inte-gration
Data base
CICS
MQ
...